

WHAT IS CLAIMED IS:

1. Raney copper which is doped with at least one metal from the group comprising iron and/or noble metals.
- 5 2. A process for the production of the Raney copper according to claim 1, wherein a copper/aluminium alloy is activated by means of an aqueous sodium hydroxide solution, the catalyst is washed, suspended in water, an iron salt or noble metal salt solution is added to
10 this suspension, the pH value of the solution is adjusted to a value from 4 to 11, the catalyst is separated from the solution and washed.
3. A process for the production of the Raney copper according to claim 1, wherein the doping metal is
15 alloyed together with copper and aluminium, and is activated by means of aqueous sodium hydroxide solution and the catalyst is washed.
4. A process for the catalytic dehydrogenation of alcohols, wherein a Raney copper according to claim 1
20 is used as catalyst.
5. A Raney-copper catalyst according to claim 2 where the doping elements are Re, Pd, Pt, Ag, Au, Rh, Ir, Ru, Fe and/or mixtures of them.
6. A Raney-copper catalyst according to claim 3 where the
25 doping elements are Re, Pd, Pt, Ag, Au, Rh, Ir, Ru, Fe and/or mixtures of them.
7. A process for the catalytic dehydrogenation of alcohols to their corresponding carbonyls and carboxylic acids, wherein a Raney-Copper catalyst according to claim 2 is
30 used.
8. A process for the catalytic dehydrogenation of alcohols to their corresponding carbonyls and carboxylic acids,

wherein a Raney-Copper catalyst according to claim 3 is used.

9. A Raney-Copper catalyst wherein the initial alloy contains more than 50% Cu so that the finished catalyst contains more residual Al than normally found under the same activation conditions.
10. A Raney-Copper catalyst doped as described in claim 1 wherein the initial alloy contains more than 50% Cu so that the finished catalyst contains more residual Al than normally found under the same activation conditions.
11. A Raney-Copper catalyst doped as described in claim 2 where the initial alloy contains more than 50% Cu so that the finished catalyst contains more residual Al than normally found under the same activation conditions.
12. A Raney-Copper catalyst doped as described in claim 3 where the initial alloy contains more than 50% Cu so that the finished catalyst contains more residual Al than normally found under the same activation conditions.
13. A process for the catalytic dehydrogenation of alcohols to their corresponding carbonyls and carboxylic acids, wherein a Raney-Copper catalyst according to claim 9 is used.
14. A process for the catalytic dehydrogenation of alcohols to their corresponding carbonyls and carboxylic acids, wherein a Raney-Copper catalyst according to claim 10 is used.
15. A process for the catalytic dehydrogenation of alcohols to their corresponding carbonyls and

carboxylic acids, wherein a Raney-Copper catalyst according to claim 11 is used.

16. A process for the catalytic dehydrogenation of alcohols to their corresponding carbonyls and carboxylic acids, wherein a Raney-Copper catalyst according to claim 12 is used.

17. A Raney-Copper catalyst wherein the initial alloy is heat treated in air at temperatures higher than 500°C before activation.

18. A Raney-Copper catalyst doped according to claim 1 wherein the initial alloy is heat treated in air at temperatures higher than 500°C before activation.

19. A Raney-Copper catalyst doped according to claim 2 wherein the initial alloy is heat treated in air at temperatures higher than 500°C before activation.

20. A Raney-Copper catalyst doped according to claim 3 wherein the initial alloy is heat treated in air at temperatures higher than 500°C before activation.

21. A process for the catalytic dehydrogenation of alcohols to their corresponding carbonyls and carboxylic acids, wherein one a Raney-Copper catalyst according to claim 17 is used.

22. A process for the catalytic dehydrogenation of alcohols to their corresponding carbonyls and carboxylic acids, wherein a Raney-Copper catalyst according to claim 18 is used.

23. A process for the catalytic dehydrogenation of alcohols to their corresponding carbonyls and carboxylic acids, wherein a Raney-Copper catalyst according to claim 19 is used.

24. A process for the catalytic dehydrogenation of alcohols to their corresponding carbonyls and carboxylic acids, wherein a Raney-Copper catalyst according to claim 20 is used.
- 5 26. A Raney-Copper catalyst where the initial alloy has more than 50% Cu and is heat treated past 500°C in air.
- 10 27. A Raney-copper alloy doped according to one of claims 1-3 or 5-6, wherein the initial alloy has more than 50% Cu and is heat treated past 500°C in air
28. A process for the catalytic dehydrogenation of alcohols to their corresponding carbonyls and carboxylic acids, wherein a Raney-Copper catalyst according to claim 25 is used.
- 15 29. A process for the catalytic dehydrogenation of alcohols to their corresponding carbonyls and carboxylic acids, wherein a Raney-Copper catalyst according to claim 26 is used.